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## THE MEDICAL LIBRARIES OF BOSTON.<sup>1</sup>

BY JAMES R. CHADWICK, M. D.,  
*Librarian of the Boston Medical Library.*

BEFORE entering upon the true domain of this report I propose to pass in brief review the other collections of medical books that have existed in this city, or are held now by various institutions, for the purpose of allowing a few comparisons to be drawn between them and our own library at the end of its first year of existence.

An attempt to trace these libraries to their sources has, in many instances, proved as fruitless a task as did the early expeditions to discover the head-waters of the Nile. Either the records are "lost, strayed, or stolen," or else there never were annual meetings, secretaries', treasurers', and librarians' reports, or other such laborious and often useless methods of recording progress.

It is gratifying at the outset to learn that our association has adopted the name of almost the first extensive collection of medical books that was made in the city. It would be doubly pleasing could we spread a paternal wing over the books themselves.

*The Second Social or Boston Medical Library.* In the year of our Lord 1805 Drs. John C. Warren and James Jackson formed a private medical society for mutual improvement, in conjunction with Drs. Dixwell, Coffin, Bullard, Shattuck, and Homans. The society came together once a week for the purpose of reading and listening to papers. The members continued to meet until death removed all in succession. From this society, and principally from the exertions of Drs. Warren and Jackson, sprang the Boston Medical Library.<sup>2</sup>

I have been unable to obtain any information about the library except what little is contained in the catalogue of its books published in 1823, and the vote whereby it was united with the Athenæum, three years later. From the former I learn that the annual assessment was ten dollars, a large sum for those days, and one which testifies to the high value set by our forefathers upon the advantage of having free access to medical literature.

<sup>1</sup> A Report read at the First Annual Meeting of the Boston Medical Library Association, October 3, 1876.

<sup>2</sup> Life of John Collins Warren, M. D. By Edward Warren. Vol. i., page 77.

In 1826 the Boston Medical Library ceded its whole collection of books, which in 1823 numbered 1311 volumes and was valued at the time of transfer at \$4500, to the Athenæum on the following terms:—

It was agreed: "That each proprietor of the medical library should have the privilege of a life-subscriber on the payment of five dollars per annum, and should become a proprietor of the Athenæum by paying one hundred and fifty dollars, such life-subscriber to have the right, on his removal from Boston, to transfer his share for and during the period of his life; that the members of the medical library should have access to the privileges of the Athenæum during the then coming year for the sum of ten dollars; and that the medical department should receive its full proportion of the sums applied hereafter to the purchase of books."

As the shares of the Athenæum were then valued at three hundred dollars, it is probable that nearly all the members of the medical library availed themselves of the opportunity of purchasing at half-price. I find that thirty shares were so taken.

In the letter of Dr. Shattuck dated 1828, which was recently published in the proceedings of the Suffolk District Medical Society,<sup>1</sup> we are informed that there were at that time but seventy-one "regularly-bred" physicians in the city of Boston, so that at least one half of the whole number must have been members of the library. There were only thirty-five physicians who, in his opinion, could support themselves by their practice.

*The Athenæum*, enriched by the above collection, has added to its medical department until it numbers to-day about five thousand volumes. The average annual accessions for the last few years amount to forty volumes, including bound journals. It subscribes to seven American journals, two English, and one French, and to the reports of five London hospitals. Its sets of journals are not numerous, and are notably incomplete.

*The Treadwell Library* at the Massachusetts General Hospital was founded through the munificence of Dr. J. G. Treadwell, of Salem, in bequeathing, at his death in 1857, to the hospital his own medical library and the sum of forty thousand dollars, of which five thousand dollars were set aside as a permanent fund, the interest of which should be devoted to the purchase of books.<sup>2</sup> This library numbered 3527 volumes on January 1, 1876, and is increasing at the annual rate of about fifty volumes, including the journals, when bound, of which it receives thirty-two regularly. A written catalogue was made in 1860, and has been kept up to date. The library contains full sets of the best English

<sup>1</sup> Boston Medical and Surgical Journal, September 7, 1876.

<sup>2</sup> This library was first offered to the President and Fellows of Harvard College, who declined to accept the bequest on account of the "unusual and embarrassing conditions." What they were I have been unable to discover.

and American journals, but is especially rich in works relating to surgery. The use of the books is restricted to the immediate staff of the hospital, but is accorded to other professional men on written application being made.

*The Harvard University Library*, in Gore Hall, Cambridge, now contains 3783 medical books. This department of the library was founded by Ward Nicholas Boylston, Esq., who, in the year 1800, gave to the college a medical library of eleven hundred volumes as a special tribute of respect to his uncle, Dr. Zabdiel Boylston. In 1803 he established a permanent fund of five hundred dollars, subsequently augmented, the interest of which was to be expended in the purchase of books and the publication of prize dissertations.

About eight hundred volumes were added to this collection a few years since by Dr. B. J. Jeffries from the library of the late Dr. John Jeffries.

The library contains but few modern works, and hardly any recent periodicals. It receives but one strictly medical journal, and that gratuitously.

*The Library of the Harvard Medical School* consists almost exclusively of old text-books and sets of journals; it is used chiefly by the students of the school, for whom it was avowedly designed by its founders. It originated in a donation of books drawn from the private libraries of the medical faculty in 1819. The number of books may be estimated at about eighteen hundred, of which many are duplicates.

Within a week the physiological laboratory of the medical school has been the recipient of a very large cabinet of microscopic specimens and three hundred and fifty volumes from Dr. John Dean, of this city. The library contains full sets of all the best German, French, and English periodicals relating to anatomy, physiology, and microscopy.

*The Boston City Library* has in its medical department, according to the annual report for 1876, 9535 volumes. The average annual increase for the past ten years has been 549 volumes.

It receives regularly twenty-four American journals, nineteen English, fourteen French, ten German, and about twenty transactions of societies, making a total of eighty-seven periodicals.

Its collection of journals is very valuable, and the sets are tolerably complete. The trustees are very liberal in purchasing any books desired by the patrons of the institution. The regulations necessitated in a large general library do not allow of access to the shelves except as a special favor. Since the foundation of this library in 1852 many private collections of books have been deposited in its medical alcoves, among others a large portion of the library of the late Dr. James Jackson, and quite recently the library of Dr. D. T. Coit, when he retired from practice. The library of the Massachusetts Medical Society was

likewise given to the city a few years ago, at a time when all hope that the profession would ever have a library of its own was entirely relinquished.

This is unquestionably both the largest and the most valuable medical library in the city.

*The Boston Society of Natural History* has a very choice library of twelve thousand volumes, and receives regularly over five hundred journals, reports, society transactions, etc. Among them are series of all the best journals relating to anatomy, physiology, microscopy, chemistry, botany, and other kindred branches of medical science. Free use of the books is accorded to all who apply for the privilege.

*The Boston Medical Library Association.* It will be manifestly impossible for me to give in detail the individual sources from which the present library has been drawn, or the special character and size of the varied contributions. I shall, however, in this first report, seek to indicate the principal collections of books that the library has received, and make brief acknowledgment to its most prominent benefactors.

The importance of having a reading-room provided with current medical journals and of forming the nucleus of a future medical library of reference, in a locality easy of access from all parts of the city, has long been felt by the profession of Boston. The movement which culminated one year ago in the formation of the present association emanated from the Society for Medical Observation.

The first meeting of six gentlemen at the house of Dr. H. I. Bowditch on December 21, 1874, for the purpose of discussing schemes for a library, was succeeded by others, with a steadily increasing number of participants, during the spring of 1875, and later by a general call to the profession to meet on August 20, 1875. On this occasion organization was effected and officers for the first year were elected.

After a long search the rooms at No. 5 Hamilton Place were secured as possessing the prime requisites of central position and freedom from the noise of passing traffic and of business within doors.

The first extensive collection of books received was that of the Society for Medical Observation, amounting to 911 volumes of the most valuable American, English, French, and German journals. This still constitutes the most useful portion of our library. By the terms of the contract the Observation Society retains full ownership in its library and book-cases, and the right to take from the rooms its own books for the period of one week. It binds its own journals and insures its own library, as heretofore.

The next considerable acquisition of books was the obstetrical library of Dr. William Read, numbering nearly two hundred volumes, and containing nearly all the standard publications on midwifery that have appeared in England during the past century, including many rare and



choice works. This department of our library has since been enriched from many other sources, so that it now numbers nearly four hundred titles.

In January, 1876, we received from the trustees of the Boston Dispensary the library left in their building by the late Dr. John Alley. Among other books a large number of the publications of the Sydenham Society were thus added to our resources.

On April 17, 1876, the Boston Society for Medical Improvement deposited its library of 474 volumes in our rooms on the same terms as were accorded to the other society. By this act we acquired many sets of old English and American journals of great rarity and of practical as well as historic worth.

The list of individual contributors is too long to be cited here, yet I cannot pass on without acknowledging the receipt of many volumes bearing the autographs of men whom, I trust, we shall never cease to revere as the leaders of medical thought in New England during the first half of this century: John C. Hayden, George B. Doane, William Ingalls, John Homans, Winslow Lewis, James Jackson, John C. Warren, John Ware, and Charles Gordon. I regard the gifts of these volumes as special testimonials of confidence and encouragement to our infantile institution on the part of the descendants of these worthies.

To David Clapp and Son we are indebted for 271 bound volumes of American and foreign journals, ceded to us for a nominal sum, they being the exchanges of the Boston Medical and Surgical Journal during a portion of the half-century of its publication by that firm.

From these and other contributors, and by exchanges with libraries and individuals in all parts of the country, have been gathered the books that now fill our shelves.

More important, however, than sources of supply and methods of procuring are the results; and I will now render account of the trust that you have reposed in me in a precise statement of the present condition of your collection. The library contains

1339 volumes of American journals.

739 " " English "

300 " " French "

222 " " German "

23 " " Canadian "

10 " " Danish, Norwegian, and Russian journals.

6 " " Italian and Portuguese journals.

Making a total of

2639 volumes of journals.

404 " in the obstetrical section.

1445 " in general library.

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4488 " in whole library.

I take pleasure in announcing that negotiations are now pending with

the Statistical Society which, it is hoped, may result in the deposit of its library of vital statistics in our care. It contains about six hundred volumes of official reports, journals, documents, etc., bearing upon sanitary and vital science, which would prove of great value to all of us who are engaged in researches of this nature.

Of pamphlets we have about three thousand.

To turn now to another distinct purpose of the association, that of providing a reading-room, well stocked with current medical literature, I am able to report that we are regularly in receipt of one hundred and twenty medical journals, for twenty-three of which we subscribe, and for the remainder are indebted to the editors and publishers of the Boston Medical and Surgical Journal, who now send us all their exchanges within about one week of the time of their receipt; to the Harvard Medical School, and to Messrs. Codman and Shurtleff, who make over to us all the journals which they respectively receive in consequence of advertisements; and to several individual members of the association who deposit temporarily journals for which they subscribe. From the editors of the *North American Review* we receive all the medical and scientific books which are sent to them.

It is hoped that our resources may in the coming year allow us to enlarge the list of journals by the addition of some foreign ones that rarely come to this country.

From the treasurer's report you have learned that one hundred and thirty-three members have paid the annual assessment of ten dollars. From the sum thus acquired we have been able to pay our current expenses and one half the cost of furnishing. The residue of indebtedness has been defrayed by the voluntary contributions of many friends, so that we have the gratification of entering upon our second year with a library of four thousand five hundred volumes and three thousand pamphlets, *free from debt*. With a view of extending the facilities of the library and reading-room to the greatest possible number of subscribers, the executive committee have presented the amendment to the by-laws, that you have just voted, reducing the annual fee to six dollars.

A card catalogue with cross references was commenced early in the summer, and is now approaching completion, owing to the indefatigable labors of Drs. E. Wigglesworth, F. H. Brown, E. M. Buckingham, and others.

I cannot close this report without testifying to the prudence of the nominating committee, to the active coöperation of the executive committee, and especially to the deep interest and untiring exertions of your assistant librarian.

Let us enter upon the new year with a firm determination to fulfill the kindly prediction contained in the following paragraph quoted from

the highest authority in such matters: "The medical library of most promise in Boston is that of the Medical Library Association, which, though only one year old, has about three thousand volumes, and will probably rapidly increase."<sup>1</sup> Our library already exceeds the figures here adduced by fifteen hundred volumes.

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#### GANGRENE AND SLOUGHING OF THE SCROTUM AND PERINÆUM; RECOVERY WITHOUT LOSS OF TESTICLES.

BY WILLIAM A. BYRD, M. D., QUINCY, ILLINOIS.

MOST surgical text-books inform us of the frequency of sloughing of the scrotum, yet it is a lesion rarely seen by general practitioners.

Drs. I. F. Galloupe and T. T. Graves, of Lynn, report a very interesting case of the kind following an injury by machinery, in the *JOURNAL* for June 29, 1876; and Dr. J. G. Hendrick, a case equally interesting as a complication of anasarca, in the *American Medical Weekly* for July 15, 1876.

September 7, 1875, I was requested by my friends, Drs. William and Charles A. W. Zimmermann, to visit with them J. K., a German baker of middle age, well proportioned and of previous good health. He had been taken a few days before with rigors, pain and swelling in the perinæum, and general nervous prostration, with retention of urine, for which the Drs. Zimmermann were called. Upon examining the perinæum they discovered a small dark spot in the integument, half-way between the anus and the scrotum, that was evidently gangrenous. The physicians passed a Nélaton's catheter, applied warm poultices to the perinæum, and gave tonics. The discoloration continued to increase until it involved the whole perinæum and scrotum, extending to both ischial tuberosities laterally, and from the anterior verge of the anus posteriorly, to the junction of the scrotum and penis anteriorly. The discolored parts felt baggy, evidently containing infiltrated fluid; to allow as much as possible of this fluid to escape, Dr. Charles A. W. Zimmermann made an incision about an inch in depth, extending from the anterior to the posterior edge of the gangrenous parts, following the raphé of the scrotum and perinæum. There was now colliquative diarrhœa and sweating, with delirium.

The patient was in the condition described above when I first saw him. We decided to cut away as much of the gangrenous mass as possible without invading healthy tissue, and, as an absorbent and disinfectant, to apply within and around the cavity thus made as much well dried and finely pulverized clay as we could. In the afternoon the clay was removed, being saturated with the fluids from the surrounding gangrenous tissues, shreds of which came away attached to lumps of

<sup>1</sup> Literature and Institutions, by Dr. J. S. Billings, in *The American Journal of the Medical Sciences* for October, 1876.

the clay. The wound was well washed with a five per cent. solution of carbolic acid, was wiped dry, dry salicylic acid was lightly dusted over it, and it was refilled with dry clay. The strength was kept up with beef-tea, egg-nog, and decoction of bark; the sweating, restlessness, and diarrhœa were controlled with opium and atropia. Every six hours a Nélaton's catheter was passed and the urine drawn off.

September 8th. Less depression, sweating, and diarrhœa. A well-defined line of demarkation extended around the entire gangrenous mass, which was three inches in diameter between the ischia and six inches in diameter antero-posteriorly. Much more tissue came away with the clay, and some healthy pus was discharged. The same treatment was continued.

September 9th. The greater portion of the gangrenous tissues had become detached, leaving the anterior portion of the rectum exposed for about two inches. The bulbous portion of the urethra and also the membranous portion of the same were exposed as far back as the junction with the prostate gland. The membranous portion was entirely detached inferiorly and laterally, as was perfectly demonstrated every time a catheter was passed. The testicles with their tunicae vaginales hung uncovered and unattached, except by their cords, which were exposed until they reached the integument opposite the root of the penis.

This was the last time I saw the patient until after his recovery, which was very rapid, and which he owes to the careful and skillful attention of the Drs. Zimmermann, who informed me that the same general course of treatment was pursued. Not being able to get suitable clay to apply to the fragmentary gangrenous patches that were still undetached on the 10th, they substituted pulverized Peruvian bark. As soon as all the sloughs had come away, the granulations were dressed with a five per cent. solution of carbolic acid.

As regards the cause of the gangrene we could learn nothing. The patient had received no bruise of the perinæum that he remembered, had never had any venereal trouble or stricture of the urethra, and the most careful search showed no opening in the urethra through which the urine could have been extravasated. The retention of urine was subsequent to the appearance of pain and swelling in the perinæum, and was the symptom that caused him to send for a physician.

Some weeks after he was up and about I examined him and found the perinæum replaced by soft, elastic cicatricial tissue. The skin had grown out and formed a very neat but small scrotum, in which the testicles appeared freely movable. He claimed that his venereal appetite was not impaired in the least, and that he had as complete control of his rectum as ever.

I see the man every few days, and he has apparently been in excellent health ever since his recovery, more than a year ago.

## NESTLÉ'S FOOD FOR BABIES.

BY C. P. PUTNAM, M. D.

DURING last summer the attention of a number of physicians in this neighborhood was called to a food for babies, little known here, Nestlé's Lacteous Farina, made in Vevey, Switzerland, the use of which has some decided advantages, in spite of its not being the perfect substitute for mother's milk which every patent food claims to be.

Mr. Astié, the agent for the food in New York, brought with him to Boston recommendations from various sources, and some experiments with it have been published in foreign journals, to one of which I shall refer later. More or less of the food had been sold in Boston in preceding years, but until this summer apparently little or none since it has been packed for transportation in tin boxes, which alone are said to be sure to protect it from spoiling during the voyage from Europe.

In one respect the food has a practical superiority over all the numerous foods that are in common use here, namely, it comes in a dry form, and yet only water, no milk, is required in preparing it for use. It is well known that bottle-feeding is made difficult, almost more than in any other way, by the changes that milk undergoes either at the hands of the milkman, or under atmospheric influences, or from want of care between the time when it leaves the cow and the time when the last of the evening's or morning's supply is given to the baby.

Although water only is used in cooking the food, it consists almost entirely of milk in the form of powder, mixed, as is claimed, with bread baked for the purpose, of the best flour, of which only the most nutritious part, the crust, is used. The milk is brought fresh from large dairies belonging to the manufactory at Vevey, and, having been tested, is poured into steam-heated vessels and condensed in a vacuum at a nearly uniform temperature, not above 120° F. The powder of milk and bread crust which results is very fine. Lebert says that he found grains  $\frac{1}{1500}$  of an inch in diameter, and that grains of starch were found only in fragments.

In preparing the food for use, one part is mixed with from six to ten parts of cold water, which is then boiled while stirring. This cooking may be intrusted with comparative safety to unskilled hands, — a very important matter, — for the food has no tendency to ball or cake, as farinaceous substances are apt to do, and it is not likely to burn. It is not even necessary to begin by making a smooth mixture with a portion of the water.

Ehrendorfer, assistant in Monti's poliklinik in Vienna, reports<sup>1</sup> that this food was given to twenty insufficiently nourished and forty sick children from five to twenty months old. Of these, fifty-one continued

<sup>1</sup> *Jahrbuch für Kinderheilkunde und physische Erziehung*, 1874.

to take it until they were well, while with nine it was discontinued either because they did not like it or because they did not improve. Medicine was also given in these fifty-one cases, but the good results were attributed largely to the food.

Ehrendorfer concludes that the food is especially valuable in making up for a deficient supply of mother's milk, and that it is also often serviceable in cases of diarrhoeal diseases (the less so the younger the child), especially in diarrhoea consequent on weaning, when the most striking results appear to have been attained.

He compares this food, though in an indefinite way, with fresh country milk, with Liebig's food, and with condensed milk, and expresses the opinion that no one of them possesses decided advantages over the others. It would seem, however, that, whatever might be the result of more extended experiments, he had hardly done justice to his own experiments as they stand, for one could not expect to give any substitute whatever for mother's milk to sixty babies taken as they come, and find it succeed with as many as fifty-one of them.

Monti has given the food to very young children in private practice, and is of the opinion that it is not appropriate for children under six weeks of age. We do not hear, however, that it did not suit any children under that age with whom it was tried, and the statement as it stands is of so universal application to all artificial foods that it does not seem certain that it shows a peculiar property in this one.

I have given the food to a good many children with essentially the same result as that reported by Ehrendorfer. Generally it was well liked and well borne; occasionally it was not retained by the stomach, or was not liked by the baby. My impression is that it is not likely to be successful as often as Liebig's food, when the latter is made entirely in the kitchen every day and not from an extract, but the difficulty of making it in this way counts sadly against it. It is hardly necessary to say that Nestlé's food is not going to prove a perfect substitute for mother's milk; few of us expect that of any artificial food.

It is, however, fair to recognize that it is supplied in compact form, is easily cooked, is comparatively safe from the accidents from which milk often suffers, especially in the city; that most babies like it, and that it generally does not disturb the digestion and is nutritious.

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## RECENT PROGRESS IN OPHTHALMOLOGY.<sup>1</sup>

BY O. F. WADSWORTH, M. D.

*Origin and Anatomy of Pterygium.* — Homer<sup>2</sup> considers pterygium as an affection of advanced life, allied to pinguecula. Like the latter,

<sup>1</sup> Concluded from page 527.

<sup>2</sup> Corr.-Bl. f. schweiz. Aerzte, September 15, 1875; Revue des Sciences méd., April, 1876.

true pterygium is limited to the region of the palpebral fissure. The disease begins by a very small ulceration at the edge of the cornea, beneath the head of the pinguecula, and there is thus produced a minute cavity into which dust easily enters and in which tears and conjunctival secretion collect. When the ulceration heals, the conjunctiva is dragged and forms a slight elevation, and repetition of the process ends by causing an encroachment of the conjunctiva on the cornea. This method of formation renders the apparent width of the attachment to the cornea greater than it is in reality, the dragged conjunctiva assuming a fan-shape. That the true surface of adherence to the cornea is much less than the size of the pterygium is shown by its being always possible to pass a probe for a certain distance beneath its edges, but still better evidence is afforded by the results of microscopical examination. On vertical sections it is seen that the posterior surface of the pterygium has, except over a very narrow extent, a continuous epithelial covering. The pushing back of the caruncle, constantly present with pterygium, is also proof that it is not a new formation. The prophylactic treatment consists in removing causes which give rise to pinguecula — exposure to wind, dust, etc. It is not necessary to remove the whole of the pterygium, but only to reduce it, and in this way cicatricial contraction is avoided.

*Complications of Iritis.* — Of the two propositions laid down by Graefe, that the existence of posterior synechiæ is the chief cause of recurrent iritis, and that closure of the pupil is the starting-point of new complications and especially of chronic choroiditis, the latter has been unanimously accepted as true, but the truth of the former has lately been disputed. Schnabel,<sup>1</sup> from observation of a large number of cases, concludes that it is utterly impossible to give to posterior synechiæ an important position in the ætiology of acute iritis. Of one hundred and eighty cases of acute iritis, in only nine, in six individuals, had there been iritis before. Three of these individuals had recurrence without previous synechiæ, in another the previous existence of synechiæ was uncertain, and in still another marked symptoms of syphilis were present at the time of the relapse. Under the head of chronic iritis Schnabel places such cases as began with acute iritis, but in which there was no complete freedom from inflammation afterward; those in which synechiæ remained, but the subsidence of acute symptoms was followed by a constant diminution of vision and intra-ocular changes seen with the ophthalmoscope, without changes in the iris; those in which the course was for a time like that of the latter class, but was interrupted by a fresh attack of iritis, which ceased after the formation of new synechiæ and disorganization of the iris, or which became chronic as in the first group. Supposing that the progressive changes were not due to

<sup>1</sup> Archives of Ophthalmology and Otology, v. 2.



the synechiae, but to choroiditis coming on at the same time as the iritis and dependent upon the same cause, the author examined a number of cases of acute iritis with the ophthalmoscope, and found almost constantly the existence of diffuse retinitis, comparatively seldom changes in the vitreous, and rarely anomalies in the choroid. Neither the severity nor the nature of the iritis appeared to exercise any particular influence in determining the retinal complication. This presented both in syphilitic and in non-syphilitic persons the appearance of so-called specific retinitis, except in three cases, and those three cases were all specific. The changes in the choroid (consisting in more or less atrophy of pigment in the epithelial layer) in these cases did not accompany opacity of the vitreous in several instances, and the latter is regarded as due to hyalitis. The course of events is as follows: "Acute iritis is frequently accompanied by retinitis or hyalitis, or by both at the same time. After the termination of the iritis the more tenacious intra-ocular complications persist. In the majority of cases they get well too. In some, however, they slowly progress quite independently of the condition of the iris, and deteriorate the vision for months and years after the primary iritis has disappeared. According as retinitis or hyalitis persists, the final issue is atrophy of the retina and optic nerve, or atrophy of the vitreous and detachment of the retina." As a consequence of this view the practitioner should examine the interior of the eye in every case of acute iritis, and not consider the disease at an end simply because the appearances of inflammation in the iris and the exterior of the eye have disappeared.

*Formation of Capsular Cataract.* — Sinclair,<sup>1</sup> by experiments on animals, found that solutions of salts readily passed through the lens capsule by diffusion, but filtration of fluids through the capsule occurred only under a pressure greater than is normally present in the eye, while formed particles did not penetrate it at all. The injection of blood, pus, or dilute solution of ammonia into the anterior chamber set up chemical and inflammatory changes in the fluid surrounding the lens, and a disturbance of nutrition was thus caused, which became manifest in the superficial layers of the polar region of the lens. Examination of the parts thus altered showed that the lens substance and intra-capsular cells swell, become opaque, and disintegrate to an amorphous, gelatinous, and later to a granular substance. This degenerative stage is followed after a variable time by cell proliferation. The whole process of formation of capsular cataract is therefore to be looked upon as an inflammatory one, but one in which the lens capsule plays only a passive part and any projections or folds to be seen in it are dependent on the changes of the intra-capsular cells and fibres.

*Treatment of Glaucoma by Physostigmine.* — It has been remarked

<sup>1</sup> Inaug. Diss., Zürich, 1876.

by several writers that in an eye predisposed to glaucoma the instillations of atropine may excite an acute attack, and this led Lagneur<sup>1</sup> to attempt to determine if physostigmine might not exert an antagonistic effect to that of atropine in respect to increased intra-ocular pressure. He used a watery solution of a third to a half per cent., and this was well borne, when three or four drops were placed in the conjunctival sack at intervals of twenty minutes daily. Employed in five cases of glaucoma simplex and one of secondary glaucoma (the consequence of a partial dislocation of the lens), the application was constantly accompanied after three or four days by an evident decrease of intra-ocular pressure, the decrease becoming greater till the eighth or tenth day. When vision was not already destroyed it also showed a notable improvement. It was at the time of writing uncertain if the effect were permanent, but the diminution of pressure at least lasted much longer than the effect on the pupil and the accommodation. The use of physostigmine in normal human and in rabbits' eyes produced no change of tension, nor did it have any effect in a case of hæmorrhagic glaucoma. Experiments having shown that this drug directly stimulates many smooth muscular fibres, it seems probable that its action in the eye is to stimulate the non-striated fibres of the choroidal vessels. Its methodical employment for weeks is worthy of trial in glaucoma simplex, especially if the iris and anterior chamber manifest no abnormality, since in such cases experience has shown that iridectomy is of no value; in cases where iridectomy has not reduced the tension; and in secondary glaucoma, when the iris is not partially fixed by anterior or posterior synechiæ.

*Synchysis Scintillans.* — In the vitreous of both eyes of a man, aged forty-two, who died of purulent infection following an operation on the scrotum, Poucet<sup>2</sup> discovered plates of cholesterine, needles of tyrosine, and globular masses of phosphates. During life and before the operation, but for a small patch of choroidal atrophy in one eye, the only anomaly to be seen in the eyes was the presence of minute, sparkling, movable bodies in the vitreous. The existence of cholesterine (in such cases) has long been recognized, but the latter two substances have not hitherto been found. In the present case the cholesterine crystals were comparatively few. The slender needles of tyrosine were clustered together in small masses, or attached to cholesterine plates or phosphatic concretions. The globular masses of phosphates were numerous, some of comparatively large size, and, studded with little elevations, they bore some resemblance to a chestnut bur. They often inclosed groups of degenerated cells. There were also cells impregnated with phosphatic granules, and others formed groups in stages of proliferation.

<sup>1</sup> Centralblatt, No. 24, 1871.

<sup>2</sup> Annales d'Oculistique, Mai et Juin, 1876.

Aside from the conditions described, the main lesion to be found, and that not a very marked one, was in the region of the ciliary processes. Here there was maceration of the pigmented epithelium, and an increase of the cellular elements of the vitreous. Poucet concludes that the cause of the deposition of phosphates around the cells, and of the crystallization of tyrosine and cholesterine, was a fatty degeneration in the vitreous, analogous to that in atheroma of the arteries.

*Spinal Myosis.*— In certain cases of myosis occurring with tabes dorsalis, Argyll Robertson first described the peculiarity that there is no reaction of the pupil to light, but distinct variation of its size accompanying accommodative changes. Hempel<sup>1</sup> has collected nineteen cases, part observed by himself, part by others, in which this peculiarity was noted, and from their analysis he concludes that the essence of the phenomenon consists in an affection of the fibres connecting the opticus and oculo-motorius, which interrupts reflex action. With this interrupted connection there may exist also paralysis of the dilator, of the iris (myosis), paralysis of the sphincter (mydriasis), paralysis of both or neither of these muscles (medium size of pupil). With co-existence of paralysis of the sphincter alone, or of both sphincter and dilator, the condition could not be distinguished from that of simple paralysis of the sphincter, since reaction of the pupil neither to light nor to accommodative effort would occur, and with paralysis of neither muscle, so long as this was the condition in both eyes, attention would hardly be called to the peculiarity. It is generally the myosis which would attract attention. That the disturbance is not at the nucleus or in the course of the oculo-motorius is evident from the retained reaction to accommodation, and the preservation of vision demonstrates the same for the opticus.

In fifteen cases the myosis was of both eyes; among these were two in which the reaction to light was retained but sluggish; in three, one pupil was sluggish, the other without reaction to light; in all the others there was no reaction to light. In one case there was myosis of one eye, mydriasis of the other. In all, the change of the pupil with accommodation was normal. In three cases there was no myosis, but in other respects the behavior of the pupils was the same. It is worthy of remark that in one case in which there was marked myosis and no reaction to light with retained reaction to accommodation, there were no signs of tabes, the fundus was of normal appearance, but the vision was somewhat impaired, and the age of the patient (thirty-eight) was not such as to account for the myosis. It is possible that this was one of those cases in which the ocular affection precedes the other symptoms of tabes.

*Disease of the Eye in Diabetes.*— But little is generally to be found in the text-books on ophthalmology on the affections of the eye and its

<sup>1</sup> Graefe's Archiv, xxii. 1.

adnexa accompanying diabetes. Leber<sup>1</sup> has studied the subject by the light of recorded cases and of his own observations. It appears from an inspection of the literature that disturbances of vision with diabetes are by no means infrequent. Aside from the generally recognized diabetic cataract, paresis of accommodation seems to be much the most common cause of such disturbance, but there is a not inconsiderable number of cases in which there is disease of the retina or opticus.

An analysis of nineteen cases with implication of the retina shows that retinal affections are much more commonly found in advanced and severe cases, where interference with nutrition has already reached a considerable degree. Whether the retinitis may not be due to a secondary nephritis can hardly be decided in all cases; in some the evidence points strongly in this direction, while in others the influence of a nephritis must be positively excluded. The form of retinal affection found with diabetes presents little that is characteristic. Frequently there were found simple retinal hæmorrhages, often complicated with hæmorrhage into the vitreous; some cases offered the picture of apoplectic retinitis, such as is observed specially with disease of the heart or vessels; in others there was retinitis with hæmorrhages and white patches not to be distinguished from those seen with Bright's disease. Nor did the latter form present itself particularly in cases of attendant kidney disease, but also in cases of pure diabetes.

The affections of the opticus observed in diabetes are either atrophy of the nerve or amblyopia without change discoverable by the ophthalmoscope, with or without narrowing of the field of vision or with hemiopia. The nerve affection may be due to a secondary nephritis, as is the case with retinal affections, but also to a complication with intra-cranial disease, while the latter may be either secondary to the diabetes or the exciting cause both of it and of the trouble in the nerve. The great majority of disturbances in the opticus with diabetes appear, however, free from important cerebral complication, and to depend directly upon an idiopathic diabetes. Leber's own cases prove that diabetic affection of the opticus may occur with complete absence of symptoms pointing to diabetes even without any consciousness of disturbed health except as to loss of vision, and that a like affection of the retina may occur without at least the typical symptoms of glycosuria being present. The lesson to be drawn from these facts is that in no case of amblyopia should examination of the urine for albumen and sugar be neglected.

The common occurrence of paresis of accommodation has been mentioned, and often appears among the earlier symptoms of beginning diabetes. Mydriasis and paralysis of various external muscles have been observed also, and this as well when the diabetes has been the primary malady as when it has been secondary to an intra-cranial disease. In diabetic cataract it must be admitted that sugar has occasionally been found.

<sup>1</sup> Graefe's Archiv, xxi. 3.

FREY'S COMPENDIUM OF HISTOLOGY.<sup>1</sup>

"HISTOLOGY has, in the course of a few decades, triumphantly won its field; it has become an integral part of medical studies. The hand-books have necessarily become constantly more voluminous in consequence of the immense wealth of materials.

"A short compend of the most essential facts is desirable for students and practicing physicians. I have often heard this wish expressed.

"May the attempt which I herewith venture be, therefore, indulgently received. The defects of this little book are very well known to the author."

This modest preface, signed by the author and dated July, 1875, gives a perfectly just idea of the scope and nature of the work. We are not favorably inclined to compendiums, but we must except this one from our general judgment. It certainly will hardly satisfy the advanced or the very enthusiastic student, but for most it is an excellent text-book. The twenty-four lectures cover the ground very well, and may serve as a very good skeleton for the instructor in laying out a course. It is needless to say that the work is well up to the times, and we believe that Dr. Foulis's investigations on the development of the ovary are the only important addition to histological knowledge since its publication. The translator would have done well to have mentioned them in a note. The style is so easy and attractive that the book loses much of the dryness which is thought inseparable from the subject. The translator has done his work very well, though he seems occasionally unable to free himself from the idioms. The student who is not familiar with German will, we fear, misinterpret such expressions as "this actually burning controversy." The cuts, with one or two exceptions, are the same as those in the author's larger work on histology and histo-chemistry. We think it to be regretted that the magnifying power or the numbers of the objectives (presumably Hartnack's) should not be given under each figure, for the beginner cannot see that very different powers are employed. We think also that it would have been well to have said a word here and there on the best method of preparing and staining certain tissues and organs, but owing to the well-deserved popularity of Rutherford's *Outlines of Practical Histology* this is of less importance. In short, our criticisms refer to matters of detail only, and our praise to the work as a whole.

T. D.

URINARY DISEASES.<sup>2</sup>

THIS volume, which is an American reprint of an English book, seems quite superfluous, inasmuch as it covers ground already fully and far more ably occupied by several other works, foremost among which we would place the

<sup>1</sup> *Twenty-Four Lectures*. By HEINRICH FREY. Translated by GEORGE R. CUTTER, M. D. 208 Engravings on Wood. New York: G. P. Putnam's Sons. 1876. (For sale by A. Williams & Co.)

<sup>2</sup> *Diseases of the Bladder, Prostate Gland, and Urethra, including a Practical View of Urinary Diseases, Deposits, and Calculi*. Being the fourth edition of *The Irritable Bladder*, revised and much enlarged. By F. J. GANT, F. R. C. S. Philadelphia: Lindsay and Blakiston. 1876.

treatise of Van Buren and Keyes. Mr. Gant's book is quite devoid of any originality save in the style in which it is written; this, however, is exceedingly bad. The work treats of an immense variety of subjects compressed into a small space, and may thus recommend itself to certain readers or rather buyers.

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## PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

A. L. MASON, M. D., SECRETARY.

SEPTEMBER 30, 1876. *Antiseptic Gauze Dressing.* — DR. E. H. BRADFORD showed dressings of antiseptic gauze which had been used in a case of excision of the breast. The patient, a woman of cachectic appearance, sixty-four years of age, submitted to the operation September 8th. Seven days afterwards the patient walked about the ward; ten days after the operation she left the hospital, and she has had no further trouble from the incision, which healed without any suppuration. The operation was done under carbolized spray, and carbolized catgut sutures and ligatures were used. The wound was dressed but four times, and yet remained perfectly neat. The dressings shown gave evidence of the absence of any discharge, except a slight, bloody oozing. The cut edges had at no time the inflammatory swelling almost always seen in the process of healing. Dr. Bradford thought that it was impossible to state that the result was not due to other causes than the antiseptic dressing, still that it was but just to report a successful result, as a failure would have been regarded as casting discredit on the method. It was interesting that the first dressing, which was quite moist with blood when removed from the wound, showed a week afterwards a coating of mold. The carbolized gauze was therefore unable to stop the development of the spores after the blood had been well exposed to the air, when the dressing was removed, an evidence of the necessity for the use of carbolized spray in changing the dressings.

*Torsion.* — DR. MINOT inquired what was the use of tying the arteries instead of twisting, remarking that several London surgeons reported that they had not tied an artery for years.

DR. BRADFORD said that opened the question of the merits of torsion versus ligature.

DR. FIFIELD stated that torsion would promise better in the case of large arteries than with the small arteries of the breast. In arteries of the size of the femoral, the carbolized ligature might cut through. Dr. Fifield said that of late he had tied few arteries, and that with regard to small arteries it was a question of fancy and of time, the only difficulty in the method by torsion being in pulling the artery out of its sheath with the finger-nails, until it can be seized with the torsion forceps and twisted. It was said that Mr. Byrant had twisted large arteries one hundred and eighty-four times without secondary hæmorrhage, and that if the artery were properly twisted secondary hæmorrhage could not occur.

*Vaginal Ovariectomy.* — DR. WING read a paper on vaginal ovariectomy which was published in the JOURNAL of November 2d.

In connection with Dr. Wing's statement that it was the opinion of some surgeons that the small intestine was never found in Douglas's cul-de-sac, Dr. FIFIELD said he supposed that the possibility of certain vaginal herniæ was accepted.

DR. CHADWICK thought that the small intestine might be found in Douglas's cul-de-sac, since frozen sections show that in different positions of the womb, anteversion, etc., the position of the intestines varies; also that the difficulty of positive diagnosis in cases of small ovarian tumors was another objection to vaginal ovariectomy.

*Treatment of Tetanus.* — DR. FIFIELD remarked, with reference to reported cases of recovery from tetanus after the use of certain drugs, such as nicotine, chloral, and lately calabar bean, that opium seemed out of favor. It was called by physiologists a spinal irritant. Dr. Fifield had found that, in his experience, cases of tetanus recovered not on account of but in spite of the remedies. A case of recovery due to strychnine had lately been reported.

The following instance was mentioned. A man trod upon a rusty nail, and a fortnight after had sore throat with difficulty of swallowing. Two or three days later, when seen by Dr. Fifield, the patient had spasm of the diaphragm. Forty drops of laudanum were given every three or four hours, mercurial ointment was rubbed into the neck, and calomel was administered and followed by profuse catharsis, accompanied by blood. The patient could not swallow fluid extract of senna on account of spasm. Later, seventy drops of laudanum were given every four hours, plenty of milk, and a pint of brandy daily. There was opisthotonos, and the patient had to be removed from the bed quite stiff. He was able to urinate. The jaws were never entirely closed. An eruption of lichen occurred. The first symptom of recovery was a less degree of rigidity of the abdominal muscles, though diarrhœa continued in spite of the laudanum. Little by little the spasm diminished so that the patient could chew. With smaller doses of laudanum the diarrhœa subsided, and eventually the patient got well.

The cathartic action of laudanum was noticeable.

*Subcutaneous Injection of Morphine.* — In answer to the question why laudanum was used in preference to morphine subcutaneously, Dr. FIFIELD said that it was to avoid the liability to accusation by ignorant persons of having killed the patient.

DR. BUNDY inquired whether a fatal case had occurred from the injection of an eighth of a grain of morphine subcutaneously.

DR. FIFIELD said that he had seen very nearly fatal results from an eighth to a quarter of a grain, notably in one case at the City Hospital, in which the battery had to be applied all night to keep the patient alive.

DR. MINOT asked whether an old solution was used, or powder dissolved on the spot, remarking that the strength of morphine solution was variable owing to evaporation and other causes. The powder was much more reliable. In answer to the objection that preparations of morphine were very insoluble, Dr. Minot said that a grain of the sulphate would dissolve easily in fifteen drops of water heated over a match. In the case of a patient seventy-eight years old, who was suffering from gall-stones, immediate relief followed the in-



jection of a third of a grain into the arm, and no bad symptoms followed. The symptoms mentioned as occurring after the injection of a vein had been observed. They were curious, but not alarming.

DR. FIFIELD said that the faintness and nausea which followed the subcutaneous injection of morphine were objectionable.

DR. MINOT thought that they were not more so than after any form of opium.

DR. LYMAN said that these effects were obviated by adding atropine in the proportion of a half grain to eight grains of morphine. He had once observed a patient who was in a dangerous condition for half a day after the injection of half a grain of morphine.

DR. WILLIAMS inquired whether the decomposition of the solution might not be the cause of bad symptoms from the development of bacteria.

DR. FIFIELD said that he had added a small quantity of carbolic acid to solutions of morphine as a preservative. He referred also to cases of active delirium following the use of morphine.

DR. WILLIAMS suggested that such cases might be due to perverted nutrition, as he had seen a little solution of atropine (two grains to the drachm) dropped into the eye cause violent delirium, which could not be due to the usual action of the drug, but to the feeble condition of the subjects.

DR. FIFIELD mentioned a case in which a quarter of a grain of morphine had been given subcutaneously in the case of a woman in labor. Death followed, and was attributed by the ignorant friends to the injection. At the autopsy rupture of a branch of the coeliac axis was found, with a quart of blood in the abdominal cavity.

DR. HALL thought that one-grain opium pills were safest for administration to the ignorant.

DR. HARLOW had found that many patients preferred morphine subcutaneously, and that an eighth to a quarter of a grain usually produced the desired effect.

DR. LYMAN had never found much effect from an eighth of a grain.

DR. GARRATT said that he had noticed that the injection of morphine in the epigastric region was usually free from the objections arising from too sudden absorption.

DR. D. HUNT had also observed that nausea and faintness were obviated by the addition of a sixtieth of a grain of atropine, and that carbolic acid was a preservative.

DR. LYMAN inquired whether typhoid fever was very prevalent, stating that he had met with an unusual amount.

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### SPIRITISM.

THE "spiritists" are having a hard time both at home and abroad. There is now an epidemic of exposure, apparently perfectly analogous to those of delusion, crime, and disease, which often affect both hemispheres at once. Truth just now is up and humbug is down, but the mediums need not be discouraged, for we venture to predict that their turn will come, and truth will go down

again. The fact is that a large number of weak minds desire to be deceived, and we may be sure that in one form or another the supply of deception will be equal to the demand. We are, nevertheless, in full sympathy with the present expositors. Spiritism is not only a silly but a wicked and dangerous fraud, that does great harm; consequently its exposure is desirable. A great difficulty in dealing with the matter is that it involves not only deception on the part of the medium but a preëxisting delusion, or tendency to delusion, on the part of the victim. The mold of a hand is placed before him; he often does not wait to be told that it belongs to some dear departed friend, but is only too glad to originate such a theory. His reasoning process must be something like this: "I am thinking of such a person; here is the mold of a hand; it is that of his or her hand." The self-delusion is so complete and spontaneous that the medium might be said hardly to take part in it. Now is it surprising that one who can deceive himself in the way we have supposed should decline to renounce this comforting fable because he is told the medium is a cheat? Not at all. Such minds are absolutely incapable of reason, and argument is thrown away. As an example, think of the subscription that is actually started to raise money to defray the costs of the appeal of the convicted impostor, Slade. There is something touching in the ingenious simplicity of the suggestion that Mr. Bishop, who exposes the mediums, does so by "medial" powers of his own. It certainly implies considerable greenness or great good nature on the part of the spirits.

Mr. Bishop's exhibition in this city on Saturday last was very satisfactory as a display of jugglery. His skill is certainly remarkable. In other respects we were greatly disappointed; for we had expected to have the tricks explained to the audience, but the promise to this effect was evaded. For instance, the trick of reading a name in a closed envelope was very well performed, but the only explanation vouchsafed by the exposor was that he found it out by "unconscious cerebration" on the part of Professor Horsford, who held the alphabet. To explain the trick the lecturer was bound to tell how this "unconscious cerebration" manifested itself, if indeed he did not already know the name. The committee was composed of Professors Holmes, Ellis, and Horsford, gentlemen of great scientific attainments; but it would have been much better to have had three who were experts in legerdemain. The explanation was far from a perfect one, such as, for instance, was given in London by the conjurer Maskeyne in open court during Slade's trial. We would suggest to Mr. Bishop that men of common sense do not need to be told that spiritism is a humbug, but that they would like a definite technical explanation of the way in which the tricks are performed. If he really wishes to do good, this is the way to do it.

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#### MEDICAL NOTES.

—The graduating exercises of the Medical Department of Dartmouth College, took place on November 1st. They would appear to have been of rather a novel character, as we notice that the Hippocratic oath was administered. If we remember rightly, a clause in this oath provides that the taker shall in-

struct without remuneration, by lectures, demonstrations, and otherwise, those wishing to learn medicine. We trust our new colleagues will remember this, unless they take this oath in a Pickwickian sense, like the temperance pledge, for instance. There were seventeen graduates, who were dismissed with a benediction.

— The sanitary condition of Philadelphia and the Exhibition grounds has been the subject of investigation on the part of a commission from *The Medical Record*. Its results are embodied in an editorial of that journal for October 28, 1876.

"So far as the sanitary condition of the grounds are concerned," says the article in question, "they may be regarded as fairly good. The numerous cases of affections attributable to irregularities in diet, etc., have usually yielded rapidly to treatment. Typhoid fever and allied febrile forms have unquestionably been much more prevalent than last year, but the comparative mortality from such causes has been largely surpassed even this year by at least one of the large cities which was visited as usual during the same season by immense numbers from all parts.

"To appreciate the task that lay before the engineers in devising effective drainage and sewerage for the exposition grounds, it will be best to consult the map. We shall there see that this three hundred acres of land is skirted on its eastern borders by the Schuylkill River, and that it is traversed from east to west by ravines which would naturally pour their waters into the river as it flows by. This very river water, however, is utilized for drinking and other purposes in the city of Philadelphia; for only a short distance below, at Fairmount, it is pumped up into a supply reservoir. Below this point again the river is dammed, and below the dam it receives much of the city sewage. It is unfortunate that only a small portion of the grounds slopes towards the south, or in the direction of the Schuylkill below the dam, so that it was thought impracticable by the engineers to carry all the sewage in that direction. Upon this southern slope, however, are the Main and Machinery buildings, so that a very large part of the waste really escapes to the southward, and emptying into the Elm Avenue sewer, on the southern line of the grounds, finds its way into the Schuylkill below the dam.

"On the rest of the grounds, from the Avenue of the Republic northward, the slope is mainly in an opposite direction, and here it is that the sewage is not carried into the city sewers, but is stored up temporarily in cesspools. This arrangement is thought to be perfectly safe, and the best practicable, because, while the soil itself is clay, the subsoil is gravel, and much of the liquid matter passes away through this natural filter. The residue is removed once or oftener daily, by odorless excavator companies, there being between seven hundred and eight hundred dollars paid to these companies per week for their work. They appear to do it well, removing the waste in closed carts. Owing to the excessive use of water for various purposes on the grounds, it was found impossible to provide for all waste in this manner, and a certain amount of the purely fluid matter has been allowed to pass into the two ravines, the Lansdowne and the Belmont, where it mingles with the surface stream. The former is the larger, and is artificial, carrying off the overflow from the principal lakes.

"We are not prepared to say that the arrangements for carrying off sewage and drainage are all that could be desired; indeed, it is clear that the supply water of the city is contaminated by the sewage of the grounds, but it is contended that the plan adopted was the only effective one that could be devised for the greater portion of the grounds; and, again, that this matter is so largely diluted with ordinary Schuylkill water that the taint is minimal. As for the sanitary condition of the grounds themselves, it is still to be proved that they have caused any unusual disease.

"In regard to the health of the city, there has been a marked increase in the number of typhoid cases, amounting, perhaps, in round numbers, to three or four times the usual number at this season. There has also been about an equal increase in the cases classed as typho-malarial. But while those classed as genuine typhoid have been fully as severe as usual, the typho-malarial cases have been quite mild in character.

"We are not in possession of sufficient facts to say that we can account for the increase of typhoid fever in Philadelphia, for we are not aware how prevalent the disease has been elsewhere; but we may safely say that there are certain conditions present in the city that are generally supposed to favor the production of typhoid, namely, an impure drinking water and imperfect sewerage."

In conclusion *The Record* remarks, —

"We have thus endeavored to present the facts of the case as bearing upon the existence and probable causes of fever in Philadelphia. While there is no doubt that the sewerage is very defective, that sewage is mixed to a certain extent with the drinking water, it is pretty evident that the dangers of fever have been very much exaggerated, and that there is very little more risk in visiting Philadelphia than would be encountered in other strange places. To those, however, who wish to take all ordinary precautions, under the circumstances we would simply say, Avoid drinking the water unless it has been boiled, eat warm and nutritious food at accustomed intervals, and guard against over-fatigue, whether of body or mind."

—An editorial in *The British Medical Journal* for October 7, 1876, on anæmia calls attention to the chief causes of the state and the consequently varying treatment. The chief causes are described to be imperfect assimilation, exhausting discharges, and the presence of some *materies morbi* in the blood, either introduced from without or formed within the organism itself. The less common causes are tuberculosis, cancer and allied affections, mental shock, and the form of necræmia with tissue degeneration known as pernicious anæmia.

In considering the treatment of the disease it is remarked that when anæmia is associated with strong mental shock, it is most intractable, and frequently resists the best laid schemes. Where anæmia coexists with an irritable stomach and acute indigestion, it is better to resort to bismuth, with acacia or tragacanth in a bitter infusion, before meals, than to give iron with the bitter. If iron be given in these cases before meals, it is apt to disagree or to be rejected, and the food with it. Consequently, it is well to give bismuth and to strictly regulate the dietary first; and then, when the stomach is less irritable, iron may be added in the form of drops after food, by which

means it is often well digested in cases where, given otherwise, it would not be assimilated. It is not a matter of indifference which preparation of iron is used. Sometimes one form, or even several forms, will disagree, and then some other preparation will be found to suit admirably. The most common form is the tincture of iron; but it is better to give it in acetate of ammonia, which makes a very pleasant form of chalybeate, often readily assimilated when other forms have failed. When iron is given strictly as a hæmatic, it should always be given after food, and then it is digested along with the food. If given before meals in a bitter infusion, it is often not properly absorbed, especially if the bulk of fluid in which it is taken be small. The addition of a tumblerful of water to each dose will often aid in its absorption. When taken after food, when the stomach is full, the iron is diffused and so is more readily absorbed. It will not rarely be found that the lighter preparations of iron, as the ammonio-citrate or tartrate, are tolerated when the perchloride and sulphate do not agree. In convalescence this is especially seen.

In the management of anæmia, its causal associations must never be overlooked, and the importance of checking all drains upon the system is quite equal to that of the restorative treatment. The failure in the treatment of anæmia is very commonly due to the neglect of these important factors.

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### BOSTON LYING-IN HOSPITAL.

SERVICE OF DR. W. L. RICHARDSON.

REPORTED BY E. Y. BOGMAN, M. D., HOUSE PHYSICIAN.

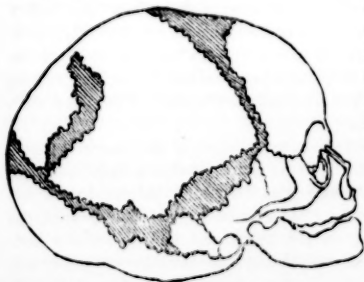
*Twins; Abnormal Condition of the Cranial Bones.* — E. L., born in Ireland; lives in South Boston; thirty-seven years old; single; first pregnancy; catamenia last seen November 22, 1875. She entered the hospital, in labor, at five P. M., August 30th. An examination showed the vaginal canal to be moist, the os dilated to the size of a "quarter dollar." The pains, which were medium in strength, occurred about every ten minutes. At eight P. M. an examination showed the head to be in the cavity of the pelvis and the large fontanelle to be presenting. This fontanelle was remarkably large, its boundaries extending beyond the edges of the os, which was dilated about two inches. The bones which formed its edges easily bent beneath the touch of the examining finger, and the sutures running out of it were very wide, the bones forming their edges also being soft and bending when touched. The four sutures running out of the large fontanelle were easily made out. The pains were strong, occurring every five minutes.

At 8.30 P. M. a change was found to have taken place in the presenting part. Upon the introduction of the examining finger it first touched a hard substance (bone) lying beneath the scalp. On feeling at either side, this hard spot was found to be apparently surrounded by what seemed to be wide sutures, the edges of which were very yielding to the touch and had no definite feel. Pressure upon this hard substance showed that it was movable, and not firmly attached to the surrounding bones. Further examination showed a wide suture running forward in the left anterior direction, where the large fontanelle was discovered. It was evident that the suture, from its direction, its leading into the large fontanelle, and its straight course, must be the sagittal, and the

presenting part must be at or near the posterior fontanelle; the position of the child, therefore, must be with the occiput in the right posterior. The lambdoidal suture could not be clearly felt.

The obscurity of the position arose from the presence of the movable bony substance above alluded to, which could be plainly felt at or near the small fontanelle, and the unusual mobility of the presenting cranial bones. The bony substance might possibly be one of the so-called *ossa triquetra* which are occasionally found in the sutures of the fetal head. These, however, are commonly seen in the lambdoidal suture and are usually multiple. They are very movable, and their outlines can generally be made out. The feel to the touch is like that of a small islet of bone, whose margin corresponds with the character of the suture in which they lie. The abnormal mobility of the cranial bones suggested a hydrocephalic fetus, but the head did not appear to be of an unusual size. A dead child might present a condition of the bones very nearly resembling those in this case, so far at least as the mobility was concerned. The fetal heart, however, could easily be heard. Fortunately the proper management of the labor did not necessitate a more accurate diagnosis of the true condition, as the labor was progressing favorably. The urine was drawn with the catheter. At ten P. M. there had been but little advance; the pulse was 115. At midnight the pulse was 120; the thermometer was 100°. The head was slowly advancing. The os uteri was dilatable and easily pushed over the head during a pain. The patient's condition was good, and the head slowly descended to the perinæum. At eight A. M. she gave birth to a boy weighing four and a half pounds. A second head was found presenting in the vagina, and at 8.20 a male child weighing two and a quarter pounds was born. There were two placentæ. The uterus contracted well. A drachm of the fluid extract of ergot was given. The second child was very weak. Its skin was yellow, dry, and desquamating. It lived about forty-eight hours. The mother made a normal convalescence, and, with the child, was discharged from the hospital, well.

The peculiarity in the head of the first child, which could not be made out during labor, was as follows:<sup>1</sup> In the right parietal bone, posterior to and



above its protuberance, was an opening or suture about an inch in length and three eighths of an inch wide. It curved downward, with its convexity forward, and its lower end nearly entered the sagittal suture. The portion of bone almost cut off by this opening, that is, the posterior superior angle of the right parietal bone, was readily movable under the touch, and resembled a bony peninsula running out

from the right parietal bone. The fontanelles and sutures of the heads of

<sup>1</sup> For the drawing which accompanies this description I am indebted to Dr. Maurice H. Richardson.

both children were remarkably large, thus explaining the unusual mobility of the cranial bones, all of which were unusually thin.

Professor Humphry has called attention to the existence of these congenital fissures in some of the cranial bones. Their origin is of course due to incomplete ossification. They have been occasionally found in the frontal, the parietal, and the squamous portion of the temporal bones.

*Ante-Partum Internal Hæmorrhage; Instrumental Delivery; Death.*—L. C., colored; born in Framingham; lived in Boston; twenty-three years old; married; third pregnancy; catamenia last seen October 18, 1875.

August 18, 1876. Entered the hospital at 5.30 A. M., in labor. An examination showed the vagina moist, the os uteri nearly dilated, the position of the child to be occiput left anterior, with the brow presenting, the membranes ruptured, the waters partly escaped, and the first stage nearly completed.

10.30 A. M. The head was in the same position as at 5.30 A. M., but a large caput succedaneum had formed. The pains had increased in frequency and strength during the last half-hour. The patient groaned continually, and was very restless. The catheter was passed and the urine drawn. Dr. Richardson first saw her at 10.45 A. M., and on examination pronounced the presentation as above described, the head being crowded down, forming, with the large caput succedaneum, a complete plug to the nearly dilated os uteri. The patient was lying on her back. She gave evidence of great distress and some apparent difficulty in breathing. The pulse was rapid and somewhat feeble, and the respiration hurried. Upon introducing the forefinger to more perfectly verify the diagnosis of the position a sharp hæmorrhage ensued, which immediately stopped on removing the finger.

Diagnosis: Internal hæmorrhage from complete or partial separation of the placenta. Owing to the patient's condition it was thought advisable to deliver at once. Ether was administered. Upon the introduction of each blade of the forceps a loss of blood followed. The instruments were locked easily, but every attempt at traction was followed by very free hæmorrhage. The forceps were withdrawn, and upon introducing the left hand to attempt version, the hæmorrhage, as before, was profuse. The cord was pulseless. As it seemed evident that version could not be performed without too great loss of blood, and as the child was probably dead, craniotomy was performed with Smellie's scissors, and the child was easily and quickly removed with the cranioclast. The house officer carefully exerted compression over the fundus uteri during the extraction of the child. No loss of blood ensued after the removal of the child, who was found to be blanched, the cord passing round the neck, the body, between the legs, and once round one of them. The placenta was drawn down with the child, and lay just within the vagina and between the knees of the child. Ergot and brandy were given, and careful compression over the uterus was kept up. During the operations brandy was given whenever the character of the pulse called for its administration.

Dr. Warren, who happened to come into the hospital during the extraction of the child, kindly assisted during the subsequent treatment. No ether was given after the extraction of the child began. The pulse during the above operations and subsequently was very rapid, and at times became almost im-



perceptible, recovering its tone slightly, however, after each dose of the brandy. The patient's manner was restless. She complained of exhaustion. About half an hour after the operation was completed she began to sink. A drachm of ether was given subcutaneously and repeated in fifteen minutes. The first dose was followed by a marked improvement in the pulse. Heaters were applied to the feet, and stimulants (carbonate of ammonia and brandy) were administered, but with no good effect.

The second stage of labor was completed at twelve o'clock, and the patient died at ten minutes past one.

It was barely possible that transfusion might have succeeded in this case, but the necessary apparatus had been mislaid and could not be found.

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## LETTER FROM LONDON.

### PROFESSIONAL MATTERS IN EDINBURGH.

MESSRS. EDITORS, — Your kind invitation to again become a contributor to your pages takes me back in feeling to more than twenty years ago. It was then my highest ambition to work for, and be thought worthy of, my native city of Boston. Can I do better now than say a few words of that other city to which in reality I owe all that I have ever become in the profession?

I have been passing August and September in Edinburgh, and after this nearly a quarter century of absence Auld Reekie has seemed to me, as then, a second home. The city itself has greatly changed. Many of the quiet streets of the new town, which gave it such a charm as a place of residence, have been invaded by trade. Others have been constructed in every direction, where then there existed but dairies and farms or country residences. The distinctive characteristics that marked Edinburgh so strongly from Glasgow have been largely effaced.

Professionally, however, Edinburgh has made a great onward stride. The renowned names that we of middle age used to venerate are mostly now of the past, but who can doubt that their places will be well filled? Vast sums have of late years enriched the university, enabling it to extend its influence, while the new infirmary, now rapidly approaching completion, will afford facilities for hospital instruction not surpassed in the kingdom, and in the hands of such men as Lister, Matthews Duncan, Alexander Simpson, and Granger Stewart, will attract medical graduates for special study, just as the old institution did in the days of their predecessors.

Most of those older men with whom it was my great privilege to be permitted to be intimate have now passed away. Lizars, one of the very first of ovariotomists, Simpson, Ziegler, Syme, Miller, Begbie, and Goodsir are gone. Of the younger men also there are many that have been taken: Warburton Begbie, whose place as a consultant seems rapidly filling by Granger Stewart; Hughes Bennett, with whom, invalided like myself at Mentone, I enjoyed daily intercourse during the winter preceding his death; and now within these last few days Laycock, who had been Bennett's successful competitor at the university, and the supposed unfair championship of whom, though I have ob-

tained evidence that the charge was unfounded, no doubt cost Simpson the coveted principalship, and thus indirectly hastened his death.

Of the older men, Dr. Gairdner and Sir Robert Christison remain almost alone; for Dr. Malcolm, although in years well advanced, is still so active and blithe that one can hardly think of him as beyond the fifties, and yet for half a century this gentleman has enjoyed the best of the purely midwifery practice of the Scotch metropolis, just as his father-in-law, the late Dr. Thatcher, so long the extra-academical professor of obstetrics, did for an equally extended period before him. Dr. Gairdner's professional career is practically over. He is now, at a very advanced age, confined to his room, and lives in the memory of those who knew him and in the fame of his distinguished son, the professor at Glasgow; but Sir Robert Christison still stands, a very tower of strength, both of body and of mind. Among my memories of Edinburgh in 1854 and 1855, none are more pleasant than those of the hours spent in Christison's lecture-room or as a guest at his house in Moray Place, where during my recent visit I have met with infinite cordiality. Discoursing of Walter Channing and of that famous visit of his to Edinburgh, which first inflamed my desire to see Simpson, and subsequently through Channing's kindness gave me the introduction which influenced my whole after-life, Sir Robert paid tribute to his versatile genius and charming companionship. It was my sorrowful duty that very evening, after the arrival of letters from home, to inform him of Channing's death.

With so much of interest on every side among the living, my own thoughts yet constantly turned towards the dead, and it was hard to realize as I stood down at Warriston, beside my master's grave, that I should never more see the dear countenance that, despite all that has been said by his detractors at home and abroad, belonged to a thoroughly honest and truthful man. Nearly my whole time in Edinburgh was spent in searching this question of Simpson's honor, which had been in certain quarters, and ever since his death, so bitterly assailed, and I failed to find the individual, even among his most inveterate enemies, — for the conflict of interests and personal animosities sever men in Edinburgh just as sometimes even in Boston, — who had ever heard a word or seen a line, either in print or in writing, from Sir James Simpson in assumption of more than his legitimate claims to honor. He had been the first to administer an anæsthetic in childbed; he had introduced chloroform to the profession as an anæsthetic after ether had been already employed. That he claimed more than this was but a delusion that originated in the minds of those who so cruelly wished to deprive him of the world's gratitude and affection. Even the men in Edinburgh who had most persistently contested with him in other matters have assured me that he was entirely misjudged by those who accused him of seeking any merit that belonged to another in connection with anæsthesia. Apropos of this subject, the late death at Boston under sulphuric ether, and in such skillful hands, has occasioned much comment in Edinburgh, as indeed elsewhere in Great Britain, and the feeling is becoming prevalent that had such accidents been searched for with the same untiring zeal as those under chloroform, others might have been made known that, of course unintentionally, have escaped the notice of the profession.

Of late years Edinburgh has had especial interest for gynecologists in connection with Matthews Duncan's operations for the removal of uterine fibroids and Thomas Keith's remarkable success in ovariectomy. It was my good fortune to see Dr. Duncan extirpate an enormous fibroma that had begun in the superior uterine wall. Determining itself into the cavity of the organ rather than that of the abdomen, it had descended until it filled the whole vagina, and was so excessive in size that it had become impossible to pass the finger, or an instrument even, so as exactly to localize its point of origin. Attacking it at first piecemeal, Dr. Duncan was enabled after a few skillful sweeps of the scissors, by the so-called "spiral schnitt," to get at its insertion and to remove it bodily. The patient made a good recovery. Another case that interested me was the excision, by Prof. Alexander Simpson, of a large interstitial fibroid, much bigger than the fist, that occupied nearly the whole of the vesico-uterine septum, and hardly showed any tendency to enucleate itself towards the uterine cavity. The patient was an insane person at Laughton Hall, a private lunatic hospital in the vicinity of Edinburgh. Recovery here also took place, and a permanent restoration of the reason is hoped for, — Professor Simpson coinciding in my own views as to the very frequent dependence of mental upon uterine disease.

Upon discussing with Dr. Keith the question of his great percentage of recoveries after ovariectomy, I find that he himself is inclined partially to attribute them, as I had been led to do from what I had heard from his townsmen, to an extreme solicitude as to matters of minute detail. The avoidance of every disturbing cause, the most constant care in nursing, the greatest watchfulness on the part of the surgeon himself — these are among the points involved. Dr. Keith is at present patiently investigating the preservative influence of antiseptics as against peritonitis and septicæmia; he has great faith in them, as who has not who has had experience with them, however we may explain some of the evidence, positive and negative, that their use affords. I have myself in more than one instance, after peritonitis has set in, untwisted my wire sutures, re-opened the abdominal cavity, and washed out well all flocculi of lymph with a strong solution of carbolic acid, turning the patients upon the face, and draining them dry. Are we to be told that the convalescence was in spite, instead of in consequence, of the treatment employed, when up to that moment there had been a constant progress to the worse, and after it an immediate favorable change?

During my stay at Edinburgh the British Association for the Advancement of Science held its annual session at Glasgow, and I ran over for a day to attend the section of anatomy and physiology, with the chairman of which, Dr. McKendrick, of Edinburgh, I already had the pleasure of acquaintance. There were present many men of note, as Gairdner and Allen Thomson of Glasgow, Turner of Edinburgh, — who speaks well of his pupil, young Magnus Simpson, as an anatomist, — Burdon Sanderson of London, and Haeckel of Jena, and the discussions were exceedingly well sustained. The papers presented on this day were by Dr. William Stirling, of Edinburgh, on the Nervous Apparatus of the Lungs, a most admirable demonstration of personal discoveries; by Professor Arthur Gamgee, John Priestley, and Leopold Lar-

muth. all of Manchester, on the Physiological Action of Vanadium, Chromium, and Ortho-, Meta-, and Pyro-Phosphoric Acids; by Dr. Garner, of Stoke-upon-Trent, upon the size, etc., of the brain in Canidæ; by Dr. Romanes, of London, on the Nervous System of Medusæ; and by Drs. Brooke and Hopwood upon the Changes in the Circulation observed when Blood is expelled from the Limbs by Esmarch's Method. At the previous session the day before, papers had been read by Dr. F. M. Balfour, of Cambridge, on the Development of the Proto-Vertebræ and Muscle-Plates in the Elasmobranch Fishes; by Dr. Urban Pritchard, of London, on the Termination of the Nerves in the Vestibule and Semicircular Canals of Mammals; and by Professor Turner, of Edinburgh, on the Structure of the Placenta in relation to the Theory of Evolution. Dr. McKendrick's address as president of the section was an interesting contribution to the Physiology of the Mind.

Dr. Lauchlan Aitken, of Edinburgh and Rome, for for several years his health has compelled this gentleman to winter in the latter city, where he has without doubt the best of the American as well as the English practice, was with me at Glasgow. As he was one of Simpson's men himself, we have long had much in common, and what I have seen of him during my three years in Italy has done much to render agreeable the long exile. Dr. Aitken's papers upon the health of Rome, in the *British Medical Journal*, are familiar to American readers, who would have been sure to appreciate a most exhaustive letter upon the same subject, written by him in conjunction with our sculptor-poet, Mr. W. W. Story, and signed by both, that appeared last June in the *London Times*.

On the evening before I left Edinburgh Prof. A. R. Simpson returned from his week's visit to the United States, — a glimpse merely, but he had to be back on time for the purpose of meeting professional engagements. Arriving in Boston late in the afternoon he was compelled to leave for Philadelphia the same evening, but he expressed to me the liveliest gratitude to his old acquaintance, Dr. Warner, whose Scotch blood led him to board the China from the revenue boat before her arrival, and to render the professor and his wife, in more ways than one, very essential service.

Unfortunately compelled by the occurrence of true diphtheria in a member of my own family, I have had to give to this disease an amount of study and thought from which I would gladly have escaped. Thanks to the assiduous care and devotedness of Dr. Granger Stewart our patient has recovered, but the investigation into the causation of this sporadic case has brought to light certain evidence of such unexpected and startling character that hereafter I may venture to bring the subject before your readers. Since coming to London I have seen much of Dr. Edward Headlam Greenhow, of Middlesex Hospital, whose work on diphtheria, though published in 1860, is still an authority. It will be recollected that Dr. Greenhow was the first to suggest perchloride of iron as a topical application in this affection. He speaks in the kindest way of Dr. Bowditch and of the vast amount of fruitful professional work that he has accomplished. It is very pleasant to find so constantly that our British brethren have kept themselves familiar with what has been doing on our side of the water.

HORATIO R. STORER, M. D.

49 SOUTH STREET, PARK LANE, W., LONDON, September 27, 1876.

## COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING OCTOBER 28, 1876.

	Estimated Population, July 1, 1876.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1875.
New York	1,061,244	424	20.77	29.35
Philadelphia	825,594	323	20.34	22.24
Brooklyn .	506,233	168	17.24	24.92
Chicago . .	420,000	166	20.55	19.75
Boston . .	352,758	121	17.84	26.20
Providence	101,500	33	16.91	19.02
Worcester .	51,087	14	14.25	20.91
Lowell . .	51,639	30	30.21	20.55
Cambridge	49,670	18	18.85	23.31
Fall River	50,372	18	18.58	23.99
Lawrence .	36,240			25.96
Lynn . .	33,548	10	15.50	19.23
Springfield	32,000	6	9.75	20.93
Salem . .	26,344	5	9.87	22.92

Normal Death-Rate, 17 per 1000.

## DR. ABEL BALL.

THE daily papers announce the very sudden death of Dr. Ball at Philadelphia on Friday last. Dr. Ball had passed a long life in the practice of dentistry in Boston, and his loss will be deeply felt by numerous friends. He had an extreme tenderness of feeling, and in the practice of his profession, which was always large, he was especially considerate and kind in his treatment of children, and of his timid patients generally. He was an old-fashioned dentist, but he did a great deal of good work, and his patients generally went away well satisfied. In the warmth of his heart he was always ready, in various ways, to lend a helping hand to the needy, and no one was ever expected or even allowed to pay for an operation if the fee could not be well afforded. His purse as well as his heart was always open. Many years ago he had the misfortune to lose his wife, and since that time he has resided with his mother-in-law, who is now ninety-five years of age, and has been greatly dependent upon him. Dr. Ball belonged to a family of physicians, his father and his grandfather before him having been, each in his turn, the leading physician of Northboro' during the whole active period of his long life. Dr. Ball was taken away very suddenly, but he was fully prepared to go, and he has left a good name behind him.

NORFOLK DISTRICT MEDICAL SOCIETY. — The regular meeting will be held in Bradley's Building, corner of Dudley and Warren streets, Roxbury, on Tuesday, November 14th, at eleven o'clock A. M. Papers, communications, etc. : —

1. Dr. F. W. Chadbourne, Salicylic Acid in Cystitis.
2. Dr. E. P. Gerry, Case of Intussusception.
3. Dr. D. D. Gilbert, Extra-Uterine Fœtation, with a Case.
4. Dr. S. E. Stone, Case of Fracture of the Base of the Skull, with Specimen.
5. Dr. Robert Amory, Local Boards of Health and the Duties of the Medical Profession relating thereto.

Lunch at 1.30 P. M.

A. H. NICHOLS, *Secretary*.

BOOKS AND PAMPHLETS RECEIVED. — The Operations for Stone as observed in some of the London Hospitals, together with a Report of Cases from Private Practice. By A. Van Derveer, M. D., Professor of the Principles and Practice of Surgery in the Albany Medical College. (Reprinted from the Archives of Clinical Surgery, October, 1876.) New York: Rutledge & Co. 1876.

Sketch Plans for the Johns Hopkins Hospital, Baltimore.

Chemia Coartata, or the Key to Modern Chemistry. By A. H. Kollinger, A. M., M. D. Philadelphia: Lindsay and Blakiston. 1876. (For sale by A. Williams & Co.)